

Date: Tuesday, 1/15/2008 3:08:31 PM  
 User: Kim Johnston

## Process Sheet

6

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 412 X-TUBE ,LOW NARROW AFT  
 Job Number : 36770  
 Estimate Number : 13020  
 P.O. Number :  
 This Issue : 1/15/2008 S.O. No. :  
 Prsht Rev. : NC  
 First Issue : 1/15/2008 Type : LANDING GEAR  
 Previous Run : 36769  
 Part Number : D412664209  
 Drawing Number : D412-664-209 ~~UR~~ A  
 Project Number : N/A  
 Drawing Revision : ~~UR~~ A  
 Material :  
 Due Date : 2/4/2008 Qty: 1 Um: Each  
 Written By : 080115  
 Checked & Approved By : 080115  
 Comment : Est Rev: A New Issue 07.09.12 EC verified by: JLM  
 Est Rev: B ECN 1100 08-01-11 DD verified by: EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D212-664-209 CHG001

KS 08-01-29

①

2.0 D6008132

Crosstube extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D6008-132 Crosstube ~~B32306~~ B60081

Check OD = 3.250"; ID = 2.375"

B32920 min 2008/2/27

J.F. 08/01/18

3.0 MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: 1-TURN AS PER FOLIO FA708 &amp; DWG D412-664-249,

FOLIO REV: AA

DWG REV: ~~X~~ A

2-DEBURR AS REQUIRED

J.F. 08/01/18

①

4.0 QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.F. 08/01/18

①

5.0 QC8

SECOND CHECK



Comment: SECOND CHECK

MK 08/01/21

①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: 412 X-TUBE LOW NARROW AFT

Job Number: 36770

Part Number: D412664209

Job Number



Seq. #

Machine Or Operation

Description

6.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

ND 8-1-21

7.0

QC6

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

BE 08/01/21

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

u 8-1-21 (1)

9.0

QC3/5

INSPECT WORK/WING WALK



Comment: Inspect work & Chemical conversion Coat

6 08/01/22 (X1)

10.0

BENDING

BENDING MACHINE



Comment: BENDING MACHINE

Bend tube as per Dwg D412-664-249 using CNC bender program and Folio:FT

EL 8-1-25

11.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

7 08/01/25 (P12)

12.0

D36601

CUFF



Comment: Qty: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

CUFF

Batch: B 36835

(2) M 9-2-7

13.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1.0 Cut to height EL/JO 8-2-7

1-Drill Rivet holes as per Dwg D412-664-249

2-Drill pilot holes in tube as per Dwg D412-664-249

3-Ream hole to finish size in tube as per Dwg D412-664-249

am/M 8-2-7

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
08/01/25	#11.1	Cut x-tube to correct height as per drawing D412-664-249 Add to I.P.P. Permit change				<i>[Signature]</i> 08.02.25	<i>[Signature]</i> 08/01/25	
08/01/25	#11.2	inspect height after cutting. QC #15 <i>Permit change</i>				<i>[Signature]</i> 08.02.25	<i>[Signature]</i> 08.02.25	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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## Process Sheet

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Drawing Name: 412 X-TUBE LOW NARROW AFT

Job Number: 36770

Part Number: D412664209

Job Number:



Seq. #:

Machine Or Operation:

Description:

4-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-249

14.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



ANM 08-02-11



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat Tube & Cuffs as per QSI 005 4.1

15.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

08/02/14 (40)

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/02/14 (40)

17.0

OUTSIDE SERV.10

OUTSIDE SERVICES -LG



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 038

Issue P/O: 5729 LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

08/02/14 (40)

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Inspect for transit damage

Ensure copy of NDT results attached to work order.

08/02/14 (40)

19.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: Inspect for damage & ensure results are as per Dwg D412-664-203

08/02/14 (40)

20.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Rivet Cuffs as per Dwg D412-664-249. with Sika flex in Between tube & Cuff

A/R SIKAFLEX -241/-291 BATCH: M105 488

EL 8-2-19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 412 X-TUBE ,LOW NARROW AFT

Job Number: 36770

Part Number: D412664209

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

CR3212407

CHERRY RIVET



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

CHERRY RIVET

Batch: M104 071

EL 8-2-19 ①

22.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

RT 08-02-19

23.0

QC14

INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

08-02-20 ①

24.0

D28961

Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Support

Batch: 33471

08/02/21

25.0

D31891

Chafing Shield



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Chafing Shield

Batch: 37185

RT 08-02-20

26.0

D3595

Rubber Cushion (per sq ft)



Comment: Qty.: 0.0263 sf(s)/Unit Total : 0.0263 sf(s)

Rubber Cushion

Cut to .630" X 5.70" Qty 2

Batch: 35126

08 02 21

27.0

MS2192028

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Clamp

Batch: 104423 / 106864

RT 08-02-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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Drawing Name: 412 X-TUBE ,LOW NARROW AFT

Job Number: 36770

Part Number: D412664209

Job Number:



Seq. #:

Machine Or Operation:

Description :

28.0

MS2192030

clamp(per MIL-DTL-8783C)



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
clamp(per MIL-DTL-8783C) M106810

ml 08 02 21

29.0

D28566001009

Abrasion strip



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Abrasion strip  
batch B36398

RT 08-02-21

30.0

AN640A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)  
Bolt  
batch M106516

31.0

AN641A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)  
Bolt  
batch M107427

32.0

MS21042L6

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)  
Nut  
batch M105077

33.0

AN960JD616

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)  
Washer  
batch M106883

PC 8/4/27

34.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1  
Assemble as per Dwg D412-664-249

B105379  
exp: 05/2008

Instal support with magnobond 6398 per dwg D412-664-249,  
cure for 12hrs before packaging.

Time & date of application: 08/02/21 1030am

ml 08/02/21

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: LD Date: 08/02/27

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 412 X-TUBE ,LOW NARROW AFT

Job Number: 36770

Part Number: D412664209

Job Number:



Seq. #:

Machine Or Operation:

Description :

Batch:

35-0  
31

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

36-0  
38

PACKAGING 1

PACKAGING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Identify and pack for shipping as per PPP D412-664-209

37-0  
39

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



37) QC4 2008/2/27 ①

2008/2/27 ①

2008/2/27 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 36770
<b>Description:</b> Crosstube Assembly (412 Low Aft)	<b>Part Number:</b> D412-664-249
<b>Inspection Dwg:</b> D412-664-249 <b>Rev:</b> A	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

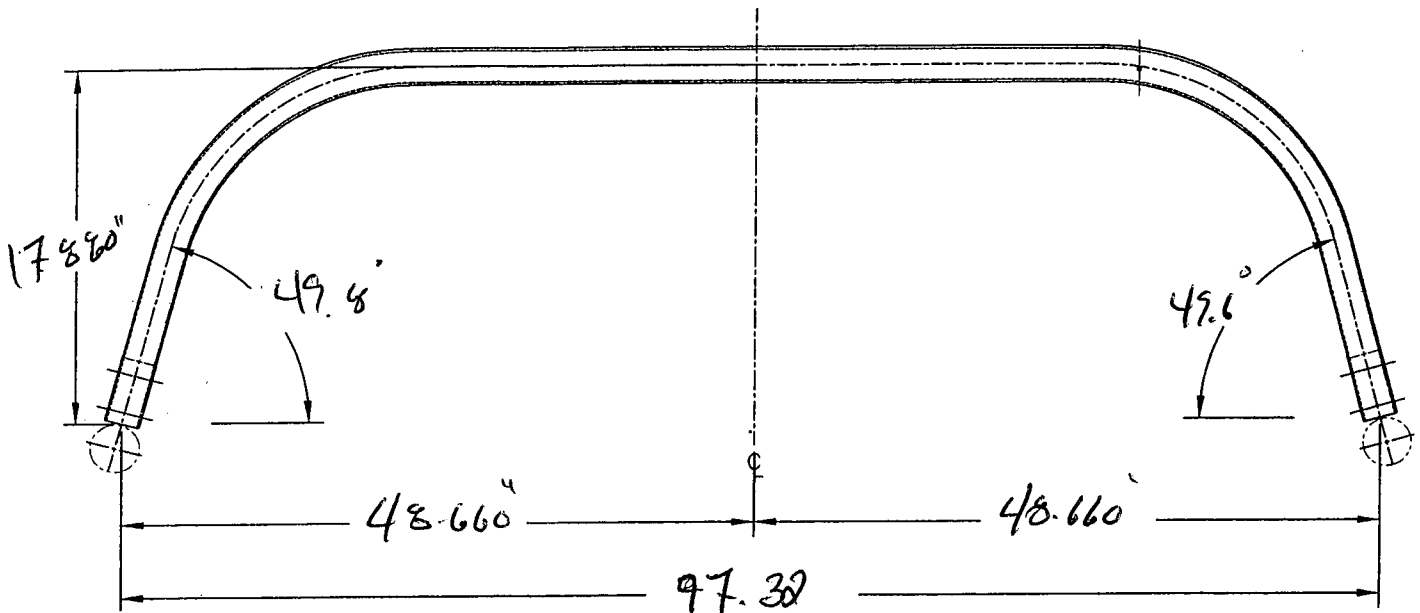
	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A							
	Ø 2.680	± .005	2.680	✓			
SIDE B	Ø 2.687"	+ .005 - .000	2.692"	✓			
	Ø 2.793"	+ .005 - .000	2.798"	✓			
	Ø 2.930"	+ .005 - .000	2.935"	✓			
	Ø 3.067"	+ .005 - .000	3.072"	✓			
	Ø 3.205"	+ .005 - .000	3.209"	✓			
	Ø 3.358"	± .005	3.361"	✓			
	127.82"	± .020	127.820"	✓			
	Ø 2.680"	+ .005 - .000	Ø 2.682"	✓			
	Ø 2.687"	+ .005 - .000	Ø 2.690"	✓			
	Ø 2.793"	+ .005 - .000	Ø 2.795"	✓			
	Ø 3.930"	+ .005 - .000	Ø 3.932"	✓			
	Ø 3.067"	+ .005 - .000	Ø 3.069"	✓			
	Ø 3.205"	+ .005 - .000	Ø 3.210"	✓			
	Ø 3.358"	± .005	Ø 3.362"	✓			

<b>Measured by:</b> J.F.	<b>Audited by:</b> [Signature]	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/01/18	<b>Date:</b> 08/01/21	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue (P/O D212-664-209)	KJ/EC/DD	

DART AEROSPACE LTD		Work Order:	36770
Description: Crosstube Low Aft (412)		Part Number:	D212-664-209
Inspection Dwg: D212-664-249 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	17.78 ✓	18.04 ✓
1/2 Span	48.55 ✓	48.81 ✓
Angle	49.1 ✓	52 ✓
Total Span	97.1 ✓	97.62 ✓



Comments

QC15 Inspection	08-02-01
Date	08/01/05

Rev	Date	Change	Revised by	Approved
A		New Issue		

**PARTS LIST:**

Qty	Part Number	Description
X	D412-664-249	CROSSTUBE ASSEMBLY (412 LOW AFT)
1	D6009-129	CROSSTUBE
2	D2856-600-1009	ABRASION STRIP
1	D2896-1	SUPPORT
2	D3189-1	CHAFING SHIELD
2	D3595-063-570	RUBBER CUSHION
2	D3660-1	CUFF
44	CR3212-4-07	RIVET (OR M7885/3-4-07)
4	MS21920-28	CLAMP
2	MS21920-30	CLAMP (OR MS21920-32)
A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
A/R	SIKAFLEX-241/-291	SEALANT (OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT)

**GENERAL NOTES:**

- 1) MATERIAL: MANUFACTURED FROM D6009-129  
FINISHED LENGTH = 127.82±0.020 (BEFORE BENDING/TRIMMING)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) PART IS SYMMETRIC ABOUT CENTERLINE.
- 6) WHEN MACHINING TAPER, RUN-OFF PART AT STOCK. BLEND OUT EDGE LONGITUDINALLY,  
TRANSITION SHOULD BE SMOOTH.
- 7) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE  
TO BENDING IS 6% BASED ON O.D., EXCEPT UP TO 10% IS ALLOWED IN AREA NOTED.
- 8) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 9) SCRIBE DART PART NUMBER AND BATCH NUMBER ON INNER SURFACE OF TUBE WITH A  
VIBRATING STYLUS.
- 10) INSTALL D2856-600-1009 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF  
CROSSTUBE PER QSI 035.
- 11) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE  
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS  
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT  
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 12) APPLY A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1  
THAT WILL BE IN CONTACT WITH THE CROSSTUBE. LET CURE FOR 12 HOURS AFTER  
INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-30 CLAMPS (OR -32) WITH D3595-063-570 RUBBER CUSHIONS TO SECURE  
D2896-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE  
CROSSTUBE SUPPORT.
- 14) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY  
AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.
- 15) INSTALL D3660-1 CUFF AFTER CHEMICAL CONVERSION COAT BUT BEFORE PAINT, WITH A  
LAYER OF SIKAFLEX-241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT BETWEEN  
CUFF AND CROSSTUBE. SEAL EDGE OF CUFF TO ENSURE NO GAPS.
- 16) TOUCH-UP HOLES WITH CHEMICAL CONVERSION COAT.

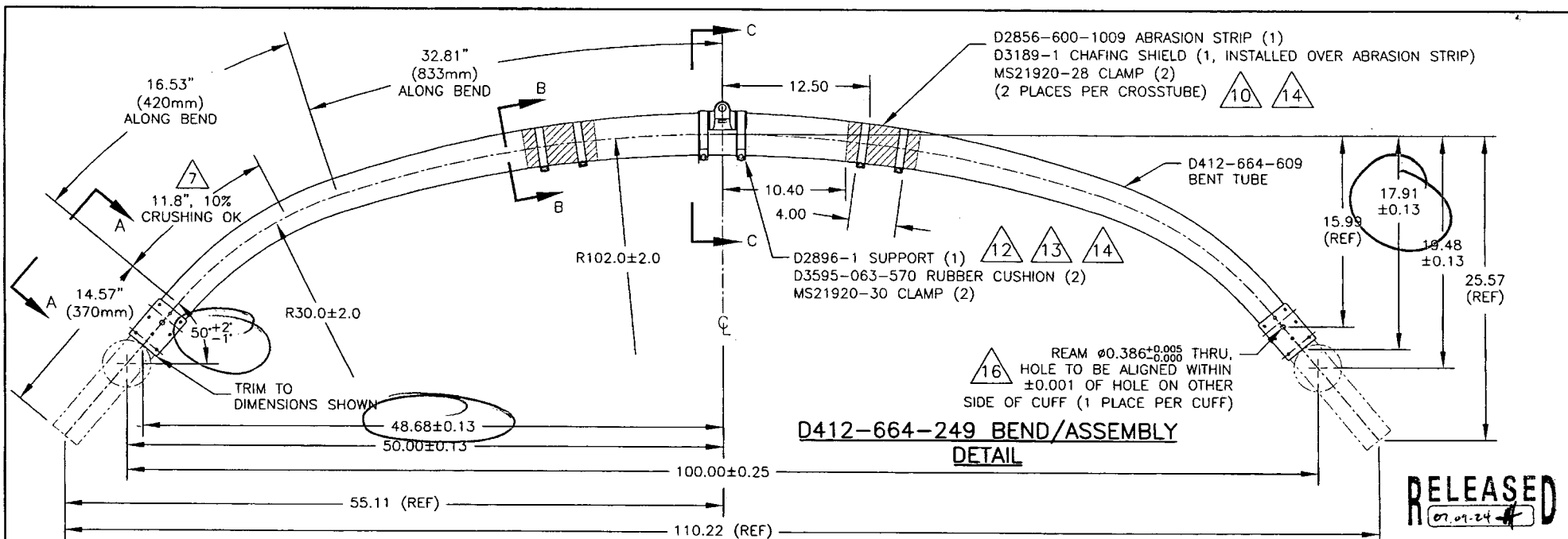
RELEASED  
07.01.24-4

NO. 36770  
WORK ORDER  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

A	07.07.07	NEW ISSUE
DESIGN <i>qp</i>	DRAWN BY <i>qp</i>	<b>DART</b> DART AEROSPACE LTD. HAMPSHIRE, ONTARIO, CANADA
CHECKED <i>qp</i>	APPROVED <i>qp</i>	DRAWING NO. 0412-664-249 REV. A SHEET 1 OF 3
DATE 07.07.07		TITLE CROSSTUBE (412 LOW AFT) SCALE NTS

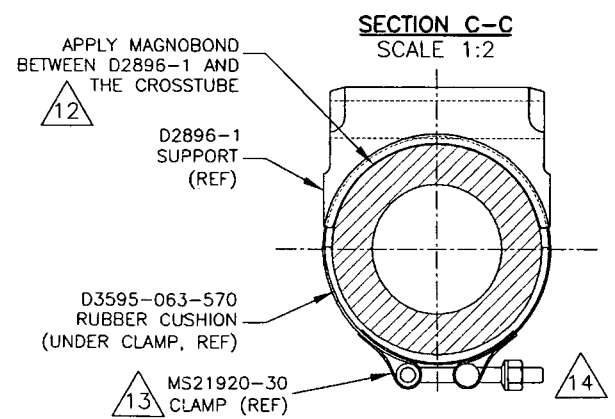
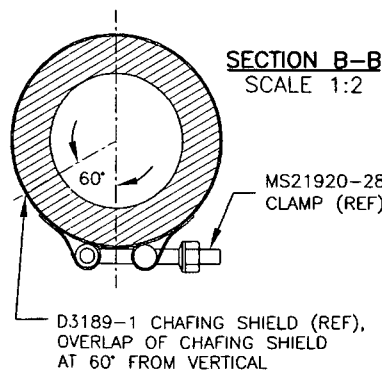
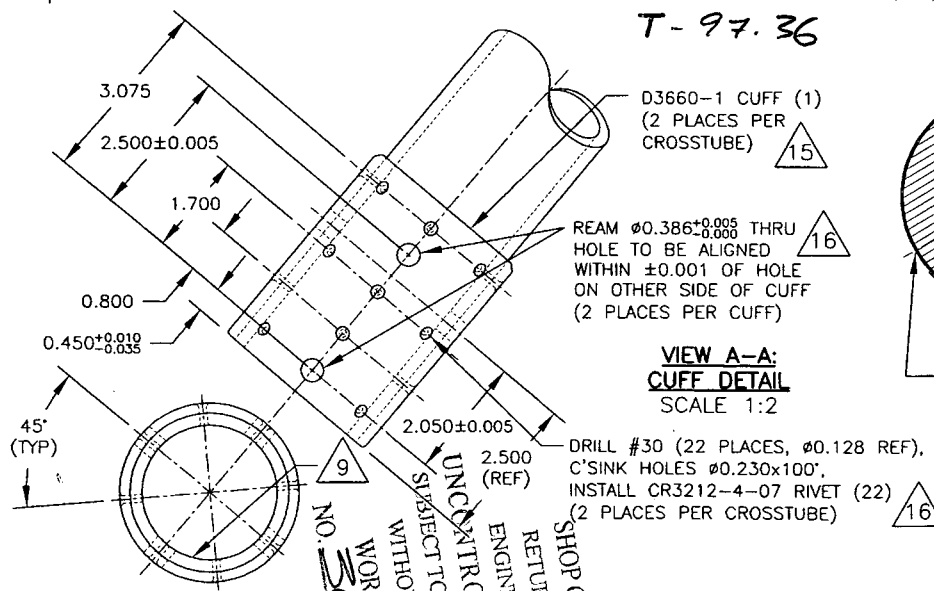
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RELEASED  
07.07.24

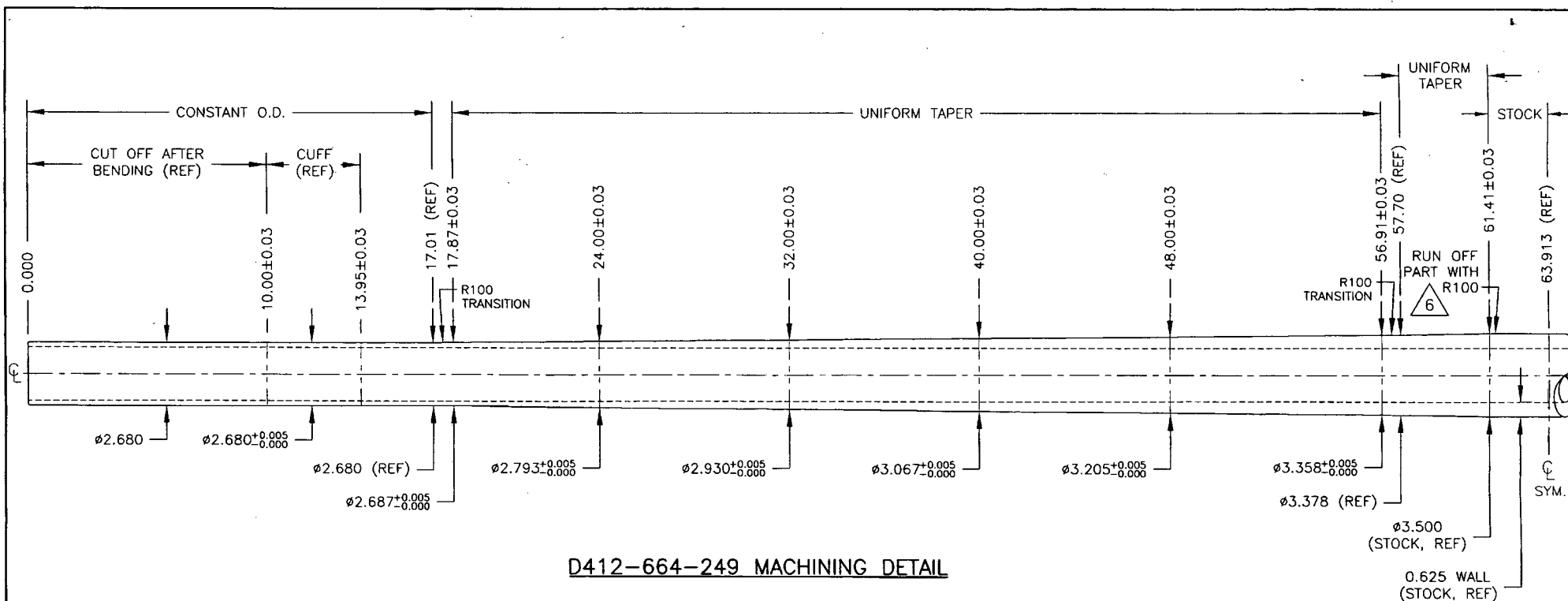
T-97.36



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DESIGN	47	DRAWN BY	47
CHECKED	47	APPROVED	47
DATE	07.07.07	DRAWING NO.	D412-664-249
		TITLE	CROSSTUBE (412 LOW AFT)
		SCALE	1:8

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 36770





# D412-664-249 MACHINING DETAIL

RELEASED  
07.09.24

NO. 36770  
WORK ORDER  
SUBJECT TO AGREEMENT  
WITHOUT NOTICE  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY

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THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED PA	APPROVED [Signature]		
		DATE 07.07.07	DRAWING NO. D412-664-249		SHEET 3 OF 3
		TITLE CROSSTUBE (412 LOW AFT)		SCALE 1:4	



# LIQUID PENETRANT TEST REPORT

P- 09830

CLIENT: Dart AREOSPACE DATE: Feb 15, 2008 PAGE: 1 OF 1  
ATTENTION: Linda Lucelle ACUREN JOB NO. 188-08-1220 TIME: AM ☐ PM ☐  
ADDRESS: 1270 Aberdeen st. PO/NO. 5729  
Hawkesbury ontario WORK LOCATION: Hawkesbury  
ACCEPTANCE STD. ASTM 1417/CSI-030 REV./DATE: 2005  
PROJECT: 212 X-TUBE, LOW NARROW AFT and FWD, 407 HIGH AFT X-TUBE ASSEMBLY, 412 X-TUBE LOW NARROW AFT  
ITEM(S) EXAMINED: Job# 36642 - 36644 - 36645 - 36768 - 36770 - 36773 - 37009 - 37010

JOB DESCRIPTION: PROCEDURE No. LT-XXXX REV./DATE TECHNIQUE No. LT-XXXX-XXX REV./DATE  
PART NO. D212664107-D212664207-D212664301-D212664305 MATERIAL ALLOYED ALUMINUM FINISH KNSS  
SCOPE: WET FLOURESCENT LIQUID PENETRANT INSPECTION CARRIED OUT ON 100% OF EXTERNAL SURFACE

TEST DETAILS  
METHOD: ☒ FLUORESCENT ☐ VISIBLE ☒ WATER WASH ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED  
FAMILY BRAND: MagnaFlux BLACK LIGHT S/N 8178 ☒ OUTPUT > 1000  $\mu$ W/cm<sup>2</sup> ☐ AMBIENT < 2 fc  
PENETRANT 2L67 MINIMUM DWELL TIME 405 MIN. LIGHTING EQUIP. ☒ FLASHLIGHT ☐ TROUBLELIGHT ☒ OUTPUT > 100 fc @ SURFACE  
PENETRANT REMOVER H2O MINIMUM DRY TIME >10 MIN. OTHER  
DEVELOPER SKDS2 MINIMUM DWELL TIME 10 MIN. LIGHT METER S/N  
DEVELOPER TYPE ☒ NON AQUEOUS ☐ AQUEOUS ☐ DRY CAL DUE DATE MAR 08

TEST SURFACE  
SURFACE CONDITION ☒ AS GROUND ☐ AS WELDED ☐ MACHINED ☐ SHOT BLASTED ☐ CLEAN BARE METAL  
SURFACE TEMPERATURE ☐ < -4°C/ 20°F ☐ -4°C/ 20°F TO 10°C/50°F ☒ 10°C/50°F TO 52°C/125°F ☐ > 52°C/125°F

RESULTS- (☐ METRIC ☐ IMPERIAL)

ITEM	COMMENTS	ACCEPT	REJECT
Job# 36642	ACCEPTABLE		
36644	ACCEPTABLE		
36645	ACCEPTABLE		
36768	ACCEPTABLE		
36770	ACCEPTABLE		
36773	ACCEPTABLE		
37009	ACCEPTABLE		
37010	ACCEPTABLE		

Scope of Services  
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.  
Standard of Care  
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

## SIGNATURES

CLIENT REPRESENTATIVE: Matthew Murdoch SIGNATURE: Matthew Murdoch DTR #  
TECHNICIAN (SIGNATURE): Chagnon Frederick REPORT REVIEWED BY:  
NAME (PRINT): Chagnon Frederick NAME INITIALS  
CGSB LEVEL II SNT LEVEL CGSB LEVEL SNT LEVEL  
CGSB REG. NO. 10560 CGSB REG. NO.